

**INTER-FRAME TECHNIQUES FOR BEHAVIORAL ANALYSIS
OF LABORATORY ANIMALS**

ABSTRACT

The present invention provides for making a comparison between a first video frame and a second video frame to determine the extent of a fear reaction in a test animal. Frame
5 comparison logic is configured to quantify any change of a value associated with at least one pixel between the first video frame and the second video frame. A centroid calculator is configured to determine the position of a centroid of a video frame. Brainwaves of a test animal are also simultaneously measured and recorded. A processor correlates, as a matter of time, the recorded brainwaves with the change of status of the pixilated image information
10 as a function of time.